# EXPERIENCES WITH STAKEHOLDER SPECIFIC FORMATS OF PARTICIPATION TO FOSTER AGROFORESTRY

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## Abstract

Agroforestry is lagging behind its possibilities in Germany. In order to foster their establishment different formats of participation are employed to include stakeholders and understand their reasoning for or against this novel, thus largely unknown land-use system. A multi-method approach is carried out under the framework of regional governance. Since each group has their own interest each need their own format of information. Farmers, for instance are interested primarily in the economic revenues compared to cash-crops thus plot-specific analysis are needed, whereas environmentalists are concerned with possible changes of the currently existing protected species. The complex set of interests and different lobby groups in land-use call for a complex set of formats, an up-to-date knowledge base on agroforestry systems and administrative and human resources to meet the increasing demand for information. The goal is to create regional governance networks that are able to fulfil these tasks in the future.

**Keywords:** participatory planning; regional governance; social network analyses; agroforestry; land use

## Introduction

The Innovation Group AUFWERTEN (Agroforestry for Environmental Services, Energy Production and Added Value funded by the German Federal Ministry of Education and Research) analyses the factors which promote or hinder the adoption of such innovative land-use concepts (Hübner and Pukall 2017). We hereby utilize the concept of governance, which is almost seen as an antonym to government, since it does not emphasize the hierarchical form of government, but rather focuses on network structures. Furthermore, governance forms a counter-term to control, a generic term of "all social forms of social action coordination" (Kilper 2010; Kooiman 2003). Based on the concept of regional governance – a concept successfully applied in the field of regional development (Böcher 2008) – we actively influence and analyse the study area of Finsterwalde, State of Brandenburg, to find out which structures and processes govern the implementation of agroforestry. The multi-method approach is carried out in accordance with Hogl et al. (2008) and includes the following axes: 1) Participation of experts and lay people; 2) Inter-sectoral and multilevel coordination; 3) Adaptive and iterative planning and 4) Use of democratic and accountable expertise.

The application of a regional governance framework is a major outcome of the first analysis based on the methodology developed by Hübner et al. (2014).

In the following the stakeholder groups are outlined, the specific formats are briefly introduced and our own experience within the process is portrayed. After conducting the initial surveys, we were basically able to distinguish two main group-sets to classify the agroforestry sector in the research area: Firstly, stakeholders of the agroforestry value chains that are directly involved, and secondly, stakeholders who indirectly participate around the agroforestry issue. Both groups are nevertheless highly diverse which complicate the participation process. Since different target groups need different forms and content of information.

**Initial rapid assessment: stakeholder networks and a "future workshop"**

Social Network Analyses (SNA) was applied in beginning of the project to get an overview about the originally present interest in agroforestry in the area (Hübner et al. 2009). The acquisition of all relevant stakeholders and the systematization of the stakeholder landscape were conducted during the kick-off conference. By using visual and mathematical analysis of relationships among each other (i.e. sociogrammes) it was aimed to understand inter-sectoral and multilevel coordination with respect to the second axis of the regional governance framework (Wasserman and Faust 1999). From that, it was possible to draw a stakeholder matrix covering all possible stakeholders and interest groups which formed the base for the invitation to the future workshop. Becoming our main strategy to involve stakeholders, this methodology is able to involve citizens in the planning process (Jungk and Müllert 1994). Led by the authors as moderators the process is characterized by five distinct phases:

• Preparation-phase: Start and Incoming: Group founding, confidence building;

• Phase I: Complaint and Criticism; Inventory for further work;

• Phase II: Imagination phase and Utopia: Here one should and can fantasize;

• Phase III: Realization and Practice: Linking Phase I and II, possibly involving experts;

• Post-processing: What's next? Feedback round;

Until now, Phase III and the post-processing is still future work of AUFWERTEN that will be undertaken starting in 2018.

**Stakeholders in the agroforestry value chain**

**Farmers and producers**

Farmers are by far the most important stakeholder group when it comes to the implementation of agroforestry. In the beginning of the project, we quickly realized from narrative interviews at farms (Helfferich 2005; Hussy et al. 2010) and expert workshops with farmers from the region, that plot specific information on the suitability of agroforestry backed-up by an economic prediction is the most important information leading to a decision. At first, the vague idea of the decision support tool, including a plethora of ecosystem functions, was therefore significantly extended towards the farmers expectations (Hübner et al. 2017). The tool works on the field block or the specific plot-level in order to help planning agroforestry for the farmers. Of major concern were the economic revenues compared to cash-crops, so the growth rates of different tree species with respect to the site conditions and expected yields were included, too. Secondly, a spreadsheet-based calculation tool was developed and provided for free on the project homepage. Both tools foster the third axis relevant for regional governance: the adaptive and iterative planning approach. While some innovative farmers or pioneers already start to plant short-rotation-strips primarily to prevent wind erosion, the majority of the farmers are still reluctant to change their management strategies. Due to the relative big farms, economy was the strongest determinant amongst the farmers in our project region.

**Other companies and service providers**

Representatives of service providers and associated companies, such as private extension and consulting and members of the forestry sector where also interviewed. For our study area, it turned out that the relatively high amount of woody material at a cheap price will decrease the profitability of agroforestry with an energy focus. Two communities can be classified as particularly wooded (63% forest). But also in the other communities of the region, the proportion of forest is high, so that here is a stronger influence of the forest sector than initially anticipated.

**Stakeholders who indirectly participate in agroforestry**

**General public**

The participation of lay people, namely residents and visitors to the region, was a major aim of the project. The interest in participation in the future workshop by non-experts was rather limited. Therefore, we have chosen to directly address the general public through in-situ questionnaires. Taking into account the agroforestry standard types defined by Hübner et al. (2016) and the underlying hypotheses for the perception of the landscape image, photorealistic synthetic images were created using image editing software, based on photographs of landscapes in the model region. The pictures were printed on folder size photo paper format and shown to the participants at seven locations in the model region. In addition to the preference query for each image series, an open question was asked about the reasons for the assessment. In total the survey included the opinion of 93 residents and tourists (52 f., 41 m). In the project time remaining, workshops with lay people associations or clubs are planned, in order to further understand the preference rankings for agroforestry systems and collect the explanatory arguments. Overall, the support for agroforestry is evident and we do not expect a negative public debate as Germany has experienced with the increase of biogas sector some years ago.

**Societies and associations**

Included in this stakeholder group are all interest and lobby groups, e.g. nature and environmental NGOs, soil and water associations and the farmers union. The NGOs representatives mainly argued for biodiversity and landscape protection. However, since the German nature conservation activists are often close to an opposing position towards a number of mainstream developments in modern agriculture, the support towards new measures of agroforestry is also under pressure, even within the NGOs associated with the project. The fear of a further intensification, especially on marginal land, is expressed in interviews and during the project work. Albeit few studies showing advantages for biodiversity compared to conventional farming without trees and shrubs (e.g. Torralba et al. 2016), the research in this area should be intensified, in order to put judgements on solid ground. For example, the presence of earthworms and soil organisms rebuilding humus in the soil, the effect for insects generally serving for pollination services, bats, birds etc. Furthermore, within the started participation process it became obvious that the maintenance of already existing agroforestry systems, such as shelterbelts which were planted during the communist era is a central issue for several actors (Tsonkova et al. 2018). Here problems of inter-sectoral and multi-level coordination have to be solved.

**Policy and administration**

This includes politicians and political parties as well as higher administrations and ministries and local governments and lower authorities. While the influence on the Common Agricultural Policy (CAP) is rather limited we focused on the *Länder* level, namely the Ministry for Rural Development, Environment and Agriculture (MLUL) of Brandenburg, and at the federal level, the Federal Ministry of Food and Agriculture (BMEL). This important part of policy lobbying will be of main emphasis during the remaining project time. These accounts for the fourth axis of regional governance: the use of democratic and accountable expertise.

**Final remarks**

The network in the studied region and beyond combines actors from communities, enterprises within the energy market and farmers, but increasingly administrations, officials and politicians. Also, the AUFWERTEN-project team is – temporarily – member of this network. The applied tools and formats should foster the idea of regional governance and the project team is excited about to find out, whether the main objective of the activities within AUFWERTEN, namely the promotion of informal networks in the sense of regional governance, will finally lead to a climate mitigation and adaptation process to establish more agroforestry systems.

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